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Mazdoor Kisan Shakti Sangathan
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IS 4561-4 (1968): Oil Cans, Part IV: Detachable Spout Oil Cans [PGD 19: Lubricating Equipments]

"ज्ञान से एक नये भारत का निर्माण"
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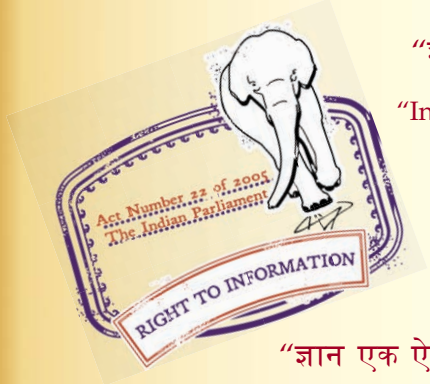

"ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है"
Bhartṛhari—Nītiśatakam
"Knowledge is such a treasure which cannot be stolen"

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IS : 4561 (Part IV) - 1968
(Reaffirmed 1982)
(Reaffirmed 2003)

Indian Standard

SPECIFICATION FOR OIL CANS

PART IV DETACHABLE SPOUT OIL CANS

(First Reprint AUGUST 1983)

UDC 621-792.2

INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Gr 2

July 1968

Indian Standard

SPECIFICATION FOR OIL CANS

PART IV DETACHABLE SPOUT OIL CANS

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Indian Standard

SPECIFICATION FOR OIL CANS

PART IV DETACHABLE SPOUT OIL CANS

0. FOREWORD

0.1 This Indian Standard (Part IV) was adopted by the Indian Standards Institution on 23 May 1968, after the draft finalized by the Lubricating Equipment Sectional Committee had been approved by the Mechanical Engineering Division Council.

0.2 Detachable spout oil cans are commonly used for oiling the machine parts through the oiler holes. The oil cans consist of a container made from tinplates. The lid of the oil can is provided with an opening with a sliding cover and the body is provided with a detachable spout. The fixing of the spout to the body is done by means of a union nut. The plunger is held in normal closed position by means of a spring thereby plugging the opening. When in use the top of the plunger is pressed which opens the hole and oil is released and flows out through the spout.

0.3 This standard is being issued in the following five parts:

Part I Light duty oil cans,
Part II Conical oil cans,
Part III Feeding oil cans,
Part IV Detachable spout oil cans, and
Part V Lever type oil cans.

0.4 While preparing this standard assistance has been derived from Specification No. IND/GS/1251 'Cans oil, lubricating feeders 200 ml with detachable spout' issued by the Chief Inspectorate of General Stores, Kanpur, Ministry of Defence, Government of India.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard specifies the requirements for detachable spout oil cans for general purposes.

*Rules for rounding off numerical values (*revised*).

2. NOMENCLATURE

2.1 For the purpose of this standard, the nomenclature as given in figure in Table 1 shall apply.

3. MATERIAL

3.1 The body, lid, handle, guide plate, side plates, boss, knob and spout shall be manufactured from 0·64 mm nominal thick tinplate, Best Coke Grade (BC) conforming to IS : 597-1962*.

3.2 The bush and stopper shall be made from 0·98 mm nominal thick tinplate, Best Coke Grade (BC) conforming to IS : 597-1962*.

3.3 The 'L' piece, nut, neck and valve rod shall be manufactured from electro-tinned low carbon steel.

3.4 The boss handle shall be made from 2·5 mm tinned wire conforming to IS : 280-1962†.

3.5 The spring shall be manufactured from hard drawn steel wire conforming to IS : 727-1964‡.

3.6 The washer shall be manufactured from 1·6 mm thick curried buffalo leather.

4. CAPACITY AND DIMENSIONS

4.1 The capacity and main dimensions for detachable spout oil cans shall be as given in Table 1.

5. MANUFACTURE

5.1 The lid, neck and handle shall be tightly fitted to the body and securely soldered alround. The threads on the neck and the nut shall be fully and accurately formed so as to effect complete engagement.

6. WORKMANSHIP AND FINISH

6.1 The oil cans shall be free from splits, cracks, dents, burrs and other defects.

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*Specification for black plate for tinning, and tinplate (pack rolled) (*revised*).

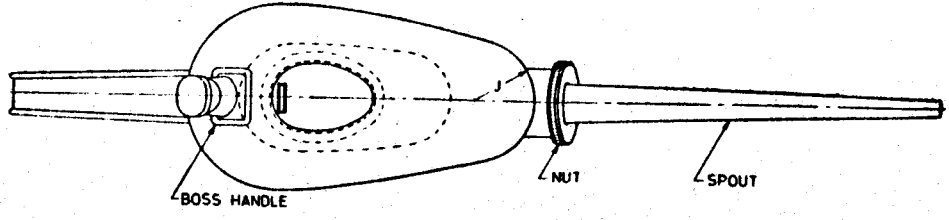
†Specification for mild steel wire for general engineering purposes (*revised*).

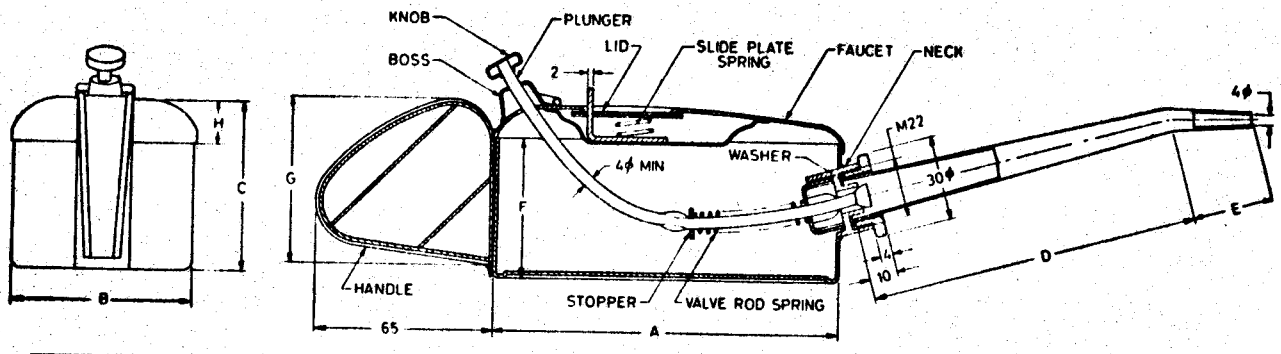
‡Specification for hard drawn carbon steel wire for springs for general engineering purposes (*revised*).

TABLE 1 DIMENSIONS FOR DETACHABLE SPOUT OIL CANS

(*Clauses* 2.1 *and* 4.1)

All dimensions in millimetres.





Capacity ml	*A* ±5	*B* ±3	*C* ±3	*D* ±3	*E* ±2	*F*	*G*	*H*	*J*
250	125	65	62	120	30	50	60	15	22
500	145	85	75	170	30	58	70	20	25

NOTE — Dimensions are approximate and for guidance only.

6.2 The joints shall be neatly formed and fully pressed. Soldering of all joints shall be neat, continuous and sound.

6.3 The washer shall be of uniform thickness, free from cracks, uneven edges and such other defects which may cause leakage of the oil through the joint.

6.4 The release mechanism shall work freely without any undue stiffness or play and shall completely cut off the flow of oil when the knob is not pressed.

7. DESIGNATION

7.1 The detachable spout oil cans shall be designated by:

a) commonly used name,

b) capacity, and

c) number of this standard.

Example:

A detachable spout oil can of capacity 250 ml shall be designated as:

Oil Can 250, IS : 4561 (Part IV).

8. MARKING

8.1 Each can shall be clearly stamped on the body with the manufacturer's name, initials or a recognized trade-mark.

8.1.1 The oil cans may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and supervised by ISI and operated by the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

9. PACKING

9.1 Each oil can shall be given a flow coating with any corrosion preventive fluid at room temperature. Fluid conforming to IS : 1153-1957* is one

*Specification for temporary corrosion preventive, fluid, hard film, solvent deposited.

of the suitable fluids for this purpose. The oil can shall be securely wrapped in waxed paper and then packed in good quality waterproof paper packings. The packings shall be securely encased in wooden cases and shall be marked with the manufacturer's name or trade-mark and the description of the contents.

9.1.1 The wooden cases may also be marked with the ISI Certification Mark (*see* Note *under* **8.1.1**).

10. SAMPLING

10.1 Unless otherwise agreed to between the buyer and the supplier the sampling plan as given in Appendix A shall be followed. For further information reference may be made to IS : 2500 (Part I)-1963*.

11. TESTS

11.1 Performance Test — The oil can shall be filled with lubricating oil and subjected to practical test consistent with its general use. The oil can shall function satisfactorily and shall show no sign of leakage through any of the joints.

11.2 Resilience Test — The valve rod spring and slide plate spring when completely closed and released 200 times in quick succession shall show no sign of permanent set.

APPENDIX A

(*Clause* 10.1)

SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY

A-1. SCALE OF SAMPLING

A-1.1 Lot — In any consignment, all the oil cans manufactured from the same material under essentially similar conditions of production shall be grouped together to constitute a lot.

A-1.2 For ascertaining the conformity of the lot to the requirements of the specification, tests shall be carried out for each lot separately. The number of oil cans to be selected at random for this purpose shall be in accordance with col 1 and 2 of Table 2.

*Sampling inspection tables : Part I Inspection by attributes and by count of defect.

TABLE 2 SAMPLE SIZE AND CRITERIA FOR CONFORMITY

(*Clauses* A-1.2, A-1.4 *and* A-2.1)

Number of Oil Cans in the Lot	Sample Size	Permissible Number of Defectives
N	n	
(1)	(2)	(3)
Up to 50	5	0
51 „ 150	8	1
151 „ 300	13	1
301 „ 500	20	2
501 and above	32	3

A-1.3 The oil cans for the testing shall be selected at random from the lot. In order to ensure the randomness of selection, random number tables shall be used. In case such tables are not available, the following procedure for selection may be adopted:

Starting from any oil can in the lot, count them in one order as 1, 2, 3, ... , up to r and so on, where r is the integral part of N/n (N being the lot size and n the sample size). Every rth oil can thus counted shall be selected to constitute the sample.

A-1.4 When the oil cans for the sample are to be selected from the packaged cases, a suitable number of cases (not less than 20 percent of the total cases in the lot subject to a minimum of 2 cases) shall be first chosen at random. From each of the cases so chosen, an approximately equal number of cans shall be picked up from different parts so as to obtain the required number of cans for the sample as specified in col 2 of Table 2.

A-2. NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

A-2.1 The oil cans selected according to **A-1.2** shall be examined for capacity and dimensions (*see* **4**), manufacture (*see* **5**), workmanship and finish (*see* **6**), and performance test (*see* **11.1**). The lot shall be considered as having satisfied the requirements of the standard, if the number of cans failing to meet the requirements for any one or more of the characteristics, is less than or equal to the permissible number of defectives given in col 3 of Table 2.

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

Quantity	*Unit*	*Symbol*
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

Quantity	*Unit*	*Symbol*
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

Quantity	*Unit*	*Symbol*	*Conversion*
Force	newton	N	1 N = 1 kg.1 m/s^2
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	.1 T = 1 Wb/m^2
Frequency	hertz	Hz	1 Hz = 1 c/s (s^{-1})
Electric conductance	siemens	S	1 S = 1 A/V
Pressure, stress	pascal	Pa	1 Pa = 1 N/m^2

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